SEQUENCE LISTING

<110> ROSS, JEFFREY S.

<120> METHODS OF DIAGNOSING AND TREATING CANCER

<130> M2051-700410

<140> 10/736,112

<141> 2003-12-15

<150> 60/439,205

<151> 2003-01-10

<160> 5

<170> PatentIn version 3.5

<210> 1

<211> 750

<212> PRT

<213> Homo sapiens

<400> 1

Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly Gly Phe 20 25 30

Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser Ser Asn Glu 35 40 45

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Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr Asn Phe Thr Gln Ile 65 70 75 80

Pro His Leu Ala Gly Thr Glu Gln Asn Phe Gln Leu Ala Lys Gln Ile 85 90 95

Gln Ser Gln Trp Lys Glu Phe Gly Leu Asp Ser Val Glu Leu Ala His 100 \$105\$

Tyr Asp Val Leu Leu Ser Tyr Pro Asn Lys Thr His Pro Asn Tyr Ile 115 120 125

Ser Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe 130 135 140

Glu Pro Pro Pro Pro Gly Tyr Glu Asn Val Ser Asp Ile Val Pro Pro Phe Ser Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg Gly Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys

Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg

Gly Ser Leu Lys Val Pro Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn

Phe Ser Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val

Thr Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro

Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val

Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Ser Tyr Ala 595 600 605

Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr $610 \hspace{1.5cm} 615 \hspace{1.5cm} 620 \hspace{1.5cm}$

Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr 625 630 635 640

Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser 645 650 655

Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu 660 665 670

Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg 675 680 685

His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser 690 695 700

Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp 705 $$ 710 $$ 715 $$ 720

Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala 725 730

Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala 740 745 750

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<213> Homo sapiens

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Leu Tyr Asn Phe Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln Asn 20 25 30

Phe Gln Leu Ala Lys Gln Ile Gln Ser Gln Trp Lys Glu Phe Gly Leu 35 40 45

Asp Ser Val Glu Leu Ala His Tyr Asp Val Leu Leu Ser Tyr Pro Asn 50 55 60

- Lys Thr His Pro Asn Tyr Ile Ser Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe Glu Pro Pro Pro Pro Gly Tyr Glu Asn Val Ser Asp Ile Val Pro Pro Phe Ser Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg Gly Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg Gly Ser Leu Lys Val Pro Tyr Asn Val
- Gly Pro Gly Phe Thr Gly Asn Phe Ser Thr Gln Lys Val Lys Met His 275 280 285

Leu Arg Gly Ala Val Glu Pro Asp Arg Tyr Val Ile Leu Gly Gly His 305 $$ 310 $$ 315 $$ 320

Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser Gly Ala Ala 325 \$330\$

Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu Lys Lys Glu Gly 340 345 350

Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala Glu Glu Asn Ser Arg Leu 370 375 380

Leu Gln Glu Arg Gly Val Ala Tyr Ile Asn Ala Asp Ser Ser Ile Glu 385 390 395 400

Gly Asn Tyr Thr Leu Arg Val Asp Cys Thr Pro Leu Met Tyr Ser Leu 405 $\,$ 410 $\,$ 415

Val His Asn Leu Thr Lys Glu Leu Lys Ser Pro Asp Glu Gly Phe Glu 420 425 430

Gly Lys Ser Leu Tyr Glu Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu 435 440 445

Phe Ser Gly Met Pro Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe 450 455 460

Glu Val Phe Phe Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr $465 \hspace{1.5cm} 470 \hspace{1.5cm} 475 \hspace{1.5cm} 480$

Thr Lys Asn Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His 485 490

Ser Val Tyr Glu Thr Tyr Glu Leu Val Glu Lys Phe Tyr Asp Pro Met $500 \hspace{1.5cm} 505 \hspace{1.5cm} 510$

Phe Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe 515 520 525

Glu Leu Ala Asn Ser Ile Val Leu Pro Phe Asp Cys Arg Asp Tyr Ala 530 535 540

Val Val Leu Arg Ser Tyr Ala Asp Lys Ile Tyr Ser Ile Ser Met Lys 545 550 555 560

His Pro Gln Glu Met Lys Thr Tyr Ser Val Ser Phe Asp Ser Leu Phe 565 570 575

Ser Ala Val Lys Asn Phe Thr Glu Ile Ala Ser Lys Phe Ser Glu Arg 580 585 590

Leu Gln Asp Phe Asp Lys Ser Asn Pro Ile Val Leu Arg Met Met Asn 595 600 605

Asp Gln Leu Met Phe Leu Glu Arg Ala Phe Ile Asp Pro Leu Gly Leu 610 615 620

Pro Asp Arg Pro Phe Tyr Arg His Val Ile Tyr Ala Pro Ser Ser His 625 $$ 630 $$ 635 $$ 640

Asn Lys Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe $645 \hspace{1.5cm} 650 \hspace{1.5cm} 655$

Asp Ile Glu Ser Lys Val Asp Pro Ser Lys Ala Trp Gly Glu Val Lys 660

Arg Gln Ile Tyr Val Ala Ala Phe Thr Val Gln Ala Ala Ala Glu Thr $675 \hspace{1.5cm} 680 \hspace{1.5cm} 685 \hspace{1.5cm}$

Leu Ser Glu Val Ala 690

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